



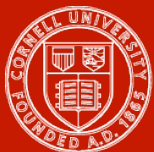
# **In the Service of Art: Metadata for Preservation of Interactive Digital Artworks**

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ALCTS-PARS Preservation Metadata Interest Group  
ALA Annual | 2015.06.27

# (very brief) Background : PAFDAO

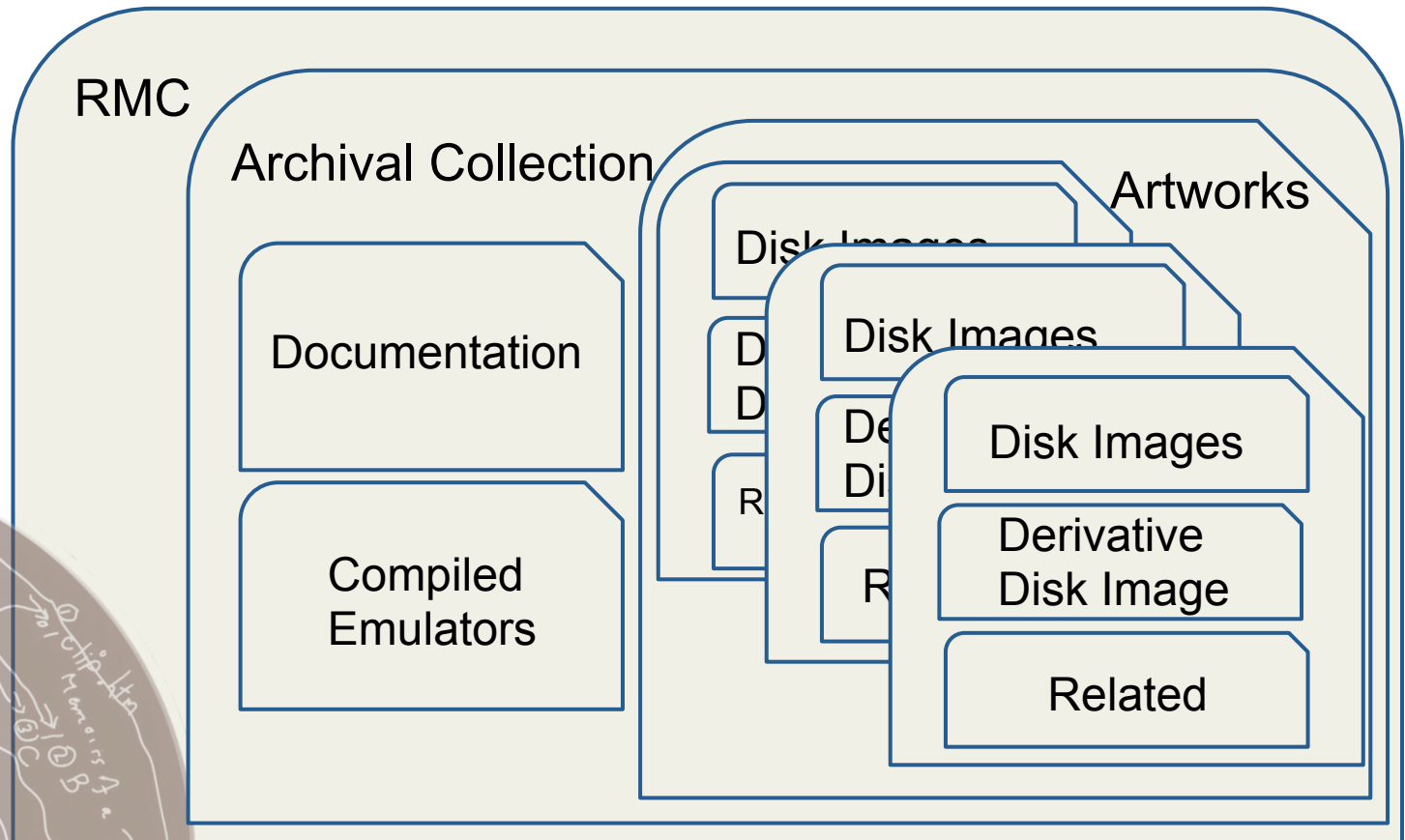
- Interactive new media art preservation
- NEH funded project R&D (2013-2015)
  - user survey
  - disk imaging
  - **metadata**
  - emulation
  - ingest
  - more...



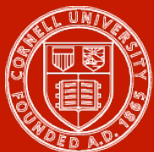
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# PAFDAO Deposit Structure



\*Simplified diagram for demonstration\*  NATIONAL ENDOWMENT FOR THE Humanities



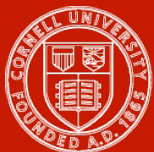
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# Descriptive Metadata

## MARCXML

- legacy bibliographic records
- first-pass technical & artistic understanding
  - `<marc:datafield tag="538" ind1=" " ind2=" ">`  
`<marc:subfield code="a">`System requirements  
(MS Windows 95 or higher): IBM-compatible PC,  
80486; 8 MB RAM (16 MB recommended); 256-  
colour VGA (640x480); CD-ROM drive (8x). `</`  
`marc:subfield></marc:datafield>`

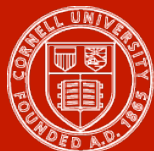
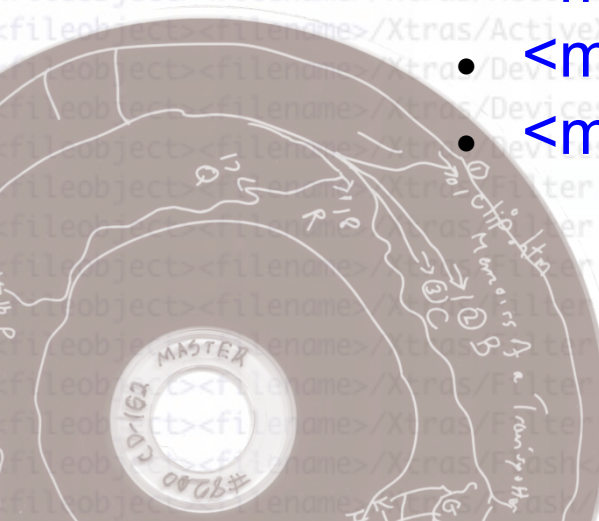




# Technical Metadata

## DFXML

- derived from command line utilities
- concern: HFS-specific information
  - `<mods:note type="HFS_entry_type">`
  - `<mods:note type="HFS_filetype_creator">`
  - `<mods:note type="HFS_resource_fork_size">`



# Preservation Metadata

## GUYMAGER ACQUISITION INFO FILE

### Guymager

Version : 0.7.4-1  
Compilation timestamp: 2014-09-11-10.35.59  
Compiled with : gcc 4.7.2  
libewf version : 20100226  
libguymager version : 2.0.2  
Host name : ubuntu  
Domain name : (none)  
System : Linux ubuntu 3.13.0-40-generic #69-Ubuntu SMP Thu Nov 13 17:53:56 UTC 2014 x86\_64

### Device information

Command executed: bash -c "search='`basename /dev/sr2`: H..t P.....d A..a de.....d' && dmesg | grep -A: echo "No kernel HPA messages for /dev/sr2""  
Information returned:

No kernel HPA messages for /dev/sr2.

Command executed: bash -c "smartctl -s on /dev/sr2 ; smartctl -a /dev/sr2"  
Information returned:

smartctl 6.2 2013-07-26 r3841 [x86\_64-linux-3.13.0-40-generic] (local build)  
Copyright (C) 2002-13, Bruce Allen, Christian Franke, www.smartmontools.org

### === START OF ENABLE/DISABLE COMMANDS SECTION ===

unable to fetch IEC (SMART) mode page [unsupported field in scsi command]  
A mandatory SMART command failed: exiting. To continue, add one or more '-T permissive' options.  
smartctl 6.2 2013-07-26 r3841 [x86\_64-linux-3.13.0-40-generic] (local build)  
Copyright (C) 2002-13, Bruce Allen, Christian Franke, www.smartmontools.org

### === START OF INFORMATION SECTION ===

Vendor: PLEXTOR  
Product: CD-R PX-W2410A  
Revision: 1.04  
User Capacity: 550,977,536 bytes [550 MB]  
Logical block size: 2048 bytes  
Device type: CD/DVD  
Local time is: Tue Nov 25 11:54:39 2014 EST  
SMART support is: unavailable - device lacks SMART capability

### === START OF READ SMART DATA SECTION ===

No bad sectors encountered during acquisition.  
No bad sectors encountered during verification.  
State: Finished successfully

MD5 hash : 0130337591fa35961e9e2aaf202ee16c  
MD5 hash verified source : 0130337591fa35961e9e2aaf202ee16c  
MD5 hash verified image : 0130337591fa35961e9e2aaf202ee16c  
SHA1 hash : aa6d191e617fd671874f05b022128c12b1a89c43  
SHA1 hash verified source : aa6d191e617fd671874f05b022128c12b1a89c43  
SHA1 hash verified image : aa6d191e617fd671874f05b022128c12b1a89c43  
SHA256 hash : 71c25934f13640bcc8f2f72aeb96a4c2343b4bd56e865136fe9795db1948d374  
SHA256 hash verified source : 71c25934f13640bcc8f2f72aeb96a4c2343b4bd56e865136fe9795db1948d374  
SHA256 hash verified image : 71c25934f13640bcc8f2f72aeb96a4c2343b4bd56e865136fe9795db1948d374  
Source verification OK. The device delivered the same data during acquisition and verification.  
Image verification OK. The image contains exactly the data that was written.



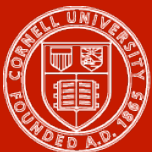
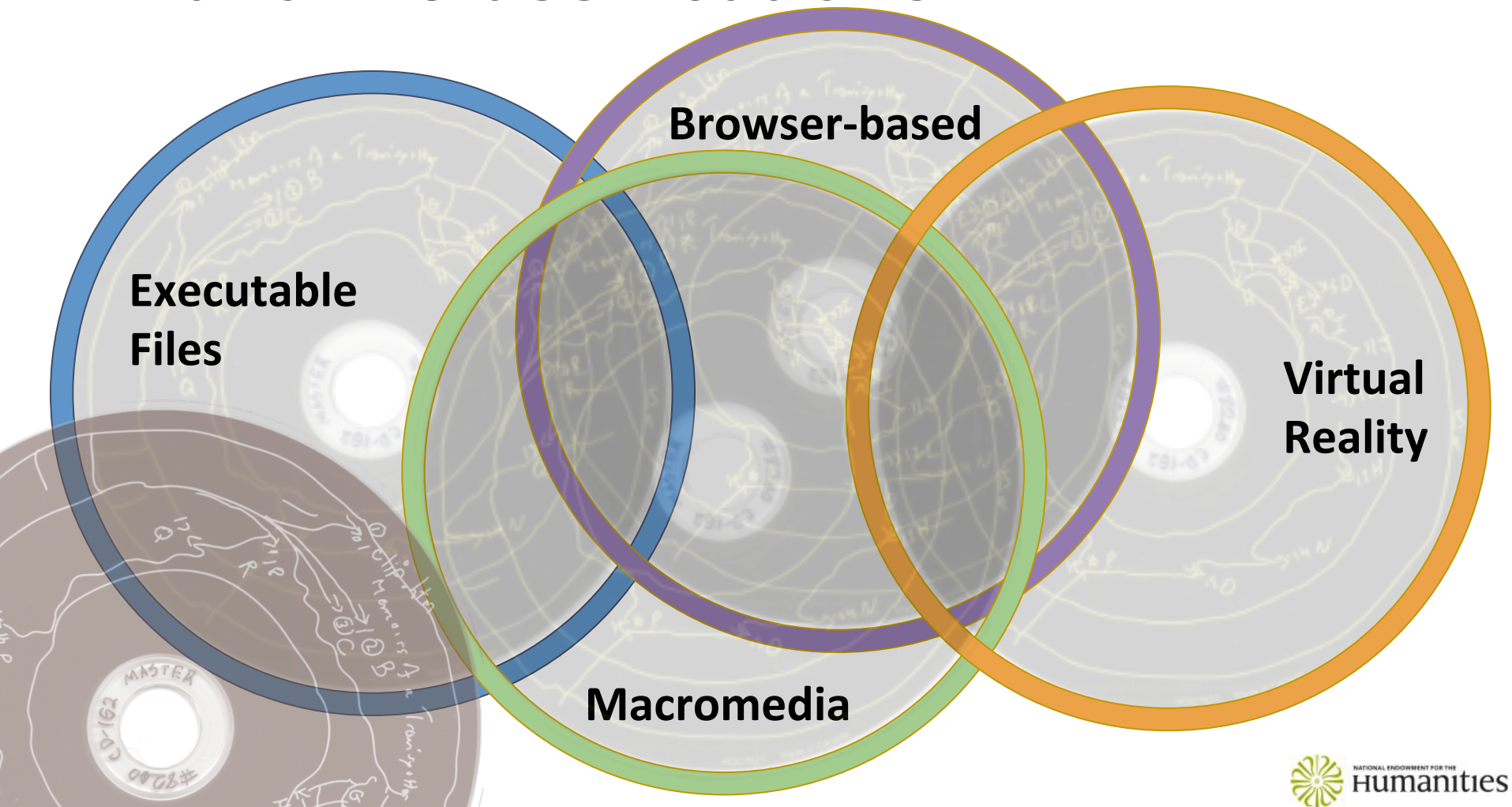
# Preservation Metadata

## PREMIS

- Script pull from Guymager Info file
- References to classifications



# Artwork Classifications



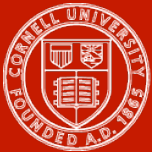
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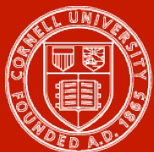
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# PAFDAO team:

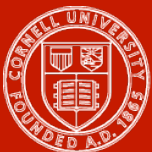
Grant PIs: Oya Rieger, Timothy Murray

Team: Desiree Alexander, Madeleine Casad, Dianne Dietrich, Jason Kovari, Danielle Mericle, Liz Muller, Michelle Paolillo

Consultants (AVPreserve): Alex Duryee, Chris Lacinak, Kara VanMalssen

Advisory Board: Ben Fino-Radin, Jean Gagnon, Rebecca Guenther, Matthew Kirschenbaum, Jon Ippolito, Norie Neumark, Christiane Paul, Richard Rinehart, Simeon Warner

This work supported by a grant from the  
National Endowment for the Humanities



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